

LISTING OF THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

1. (Currently Amended) A substrate processing apparatus for drying a processing solution adhered to a substrate, the substrate processing apparatus comprising:

a processing chamber ~~for isolating~~ operable to isolate an ambient atmosphere of a substrate from outside the processing chamber;

a holding element ~~for holding~~ operable to hold the substrate in said processing chamber;

a first valve operable to release vapor to said processing chamber, the vapor being generated from a solution of the same type as the processing solution;

a heating and pressure element ~~for supplying~~ operable to supply vapor to said processing chamber when ~~when~~ [[a]] the first valve is brought to an open state to thereby realize a rise in temperature and pressure in said processing chamber; ~~said vapor being generated from a solution of the same type as the processing solution~~;

a second valve operable to release the ambient atmosphere in said processing chamber;

a release element for releasing the ambient atmosphere ~~[[in]] from~~ said processing chamber in an external atmosphere existing outside said processing chamber, when ~~[[a]] the~~ second valve is in an open state;

a gas supply element operable to supply inert gas to said processing chamber; and

a controller ~~for controlling~~ operable to control said second valve~~[[,]]~~ to thereby release the ambient atmosphere ~~[[in]] from~~ said processing chamber when said processing solution in said processing chamber reaches a temperature ~~which is at~~ a boiling point or higher of said processing solution in the external atmosphere, the controller being only subsequently operable to control said gas supply element to supply inert gas to said processing chamber.

2. (Canceled)

3. (Canceled)

4. (Original) The substrate processing apparatus according to claim 1, wherein said processing chamber comprises:
a heating element for heating said processing chamber.
5. (Original) The substrate processing apparatus according to claim 1, wherein said processing chamber comprises:
a drainage element for draining said processing solution.
6. (Currently Amended) The substrate processing apparatus according to claim 1, wherein said processing solution is pure water,
wherein said external atmosphere is the atmosphere, and
wherein said release element releases the ambient atmosphere in said processing chamber
when said pure water in said processing chamber [[at]] reaches a temperature of 100 degrees centigrade or higher.
7. (Withdrawn) A substrate processing apparatus for performing predetermined processing on a substrate, comprising:
a processing chamber for storing a substrate and a processing solution;
a holding element for holding a substrate in said processing chamber;
a drainage element for draining a processing solution stored in said processing chamber;
and
a vapor supply element for supplying vapor to said processing chamber, said vapor being generated from a solution which is of the same type as said processing solution,
wherein said vapor is supplied from said vapor supply element to said processing chamber while said drainage element drains said processing solution stored in said processing chamber.
8. (Withdrawn) The substrate processing apparatus according to claim 7, further comprising:

a gas supply element for supplying inert gas to said processing chamber.

9. (Withdrawn) The substrate processing apparatus according to claim 8, wherein said gas supply element supplies inert gas to said processing chamber prior to supply of said vapor from said vapor supply element to said processing chamber.

10. (Withdrawn) The substrate processing apparatus according to claim 8, wherein said gas supply element supplies inert gas to said processing chamber after drainage of said processing solution stored in said processing chamber by said drainage element.

11. (Withdrawn) The substrate processing apparatus according to claim 7, further comprising:

a heating element for heating said processing chamber.

12. (Withdrawn) The substrate processing apparatus according to claim 7, wherein said vapor supply element heats said vapor and supplies the heated vapor to said processing chamber.

13. (Withdrawn) A substrate processing method for drying a processing solution adhered to a substrate, comprising the steps of:

(a) holding a substrate in a processing chamber which isolates an ambient atmosphere of a substrate from outside;

(b) realizing rise in temperature and pressure in said processing chamber; and

(c) releasing an atmosphere in said processing chamber when said processing solution in said processing chamber is placed at a temperature which is a boiling point of said processing solution in an external atmosphere or higher existing outside said processing chamber.

14. (Withdrawn) The method according to claim 13, wherein said step (b) comprises the step of:

(b-1) supplying vapor to said processing chamber, to thereby realize rise in temperature and pressure in said processing chamber, said vapor being generated from a solution which is of the same type as said processing solution.

15. (Withdrawn) The method according to claim 13, further comprising the step of:
(d) supplying inert gas to said processing chamber.

16. (Withdrawn) The method according to claim 13, further comprising the step of:
(e) draining said processing solution from said processing chamber.

17. (Withdrawn) The method according to claim 13,
wherein said processing solution is pure water,
wherein said external atmosphere is the atmosphere, and
wherein said step (c) comprises the step of:

(c-1) releasing an atmosphere in said processing chamber when said pure water in said processing chamber is placed at a temperature which is 100 degrees centigrade or higher.

18. (Withdrawn) A substrate processing method for performing predetermined processing on a substrate, comprising the steps of:

(a) holding a substrate in a processing chamber capable of isolating an atmosphere therein from outside;

(b) while a substrate is immersed in a processing solution in said processing chamber, supplying vapor to said processing chamber which is generated from a solution of the same type as said processing solution; and

(c) while said vapor is supplied to said processing chamber, draining said processing solution stored in said processing chamber.

19. (Withdrawn) The method according to claim 18, further comprising the step of:
(d) supplying inert gas to said processing chamber after said step (c).

20. (Withdrawn) The method according to claim 18, further comprising the step of:
(e) supplying inert gas to said processing chamber prior to said step (b); and
(f) supplying inert gas to said processing chamber after said step (c).
21. (Withdrawn) The method according to claim 18,
wherein said step (b) comprises the step of:
(b-1) exhausting said processing chamber.
22. (Withdrawn) The method according to claim 19,
wherein said step (d) comprises the step of:
(d-1) exhausting said processing chamber.
23. (Withdrawn) The method according to claim 20,
wherein said processing chamber is exhausted in said steps (e) and (f).
24. (Withdrawn) The method according to claim 18,
wherein said processing chamber is heated in said steps (a), (b) and (c).
25. (Withdrawn) The method according to claim 18,
wherein said step (b) comprises the step of:
(b-2) heating said vapor to supply the heated vapor to said processing chamber.